

## CLAIMS

1. An oxygen-free copper alloy containing oxygen 1 - 10 ppm of the alloy weight, **characterized** in that the alloy contains, in order to improve temperature resistance, magnesium between 30 – 180 ppm of the alloy weight and that the electroconductivity of the alloy is at least 100% IACS, preferably at least 101% IACS.
2. An alloy according to claim 1, **characterized** in that the alloy contains magnesium for over 50 ppm.
3. An alloy according to claim 1 or 2, **characterized** in that the alloy contains magnesium not more than 150 ppm.
4. An alloy according to any of the preceding claims, **characterized** in that the alloy contains oxygen not more than 5 ppm, preferably 1 – 3 ppm.
5. An alloy according to any of the preceding claims, **characterized** in that the half-softening temperature with a 40% degree of deformation is at least 340° C, preferably at least 380° C.
6. An alloy according to any of the preceding claims, **characterized** in that the half-softening temperature with a 94% degree of deformation is at least 300° C, preferably at least 335° C.
7. An alloy according to any of the preceding claims, **characterized** in that the alloy further contains as impurities phosphorus, silicon and sulfur.
8. The use of copper manufactured according to any of the claims 1 – 7 in commutators of electric motors where there is required a good temperature resistance and a good electroconductivity or thermal conductivity.

9. The use of copper manufactured according to any of the claims 1 – 7 in a tip of a welding electrode where there is required a good temperature resistance and a good electroconductivity or thermal conductivity.
- 5     10. The use of copper manufactured according to any of the claims 1 – 7 in generator profiles where there is required a good temperature resistance and a good electroconductivity or thermal conductivity.
- 10    11. The use of copper manufactured according to any of the claims 1 – 7 in generator flat bars where there is required a good temperature resistance and a good electroconductivity or thermal conductivity.